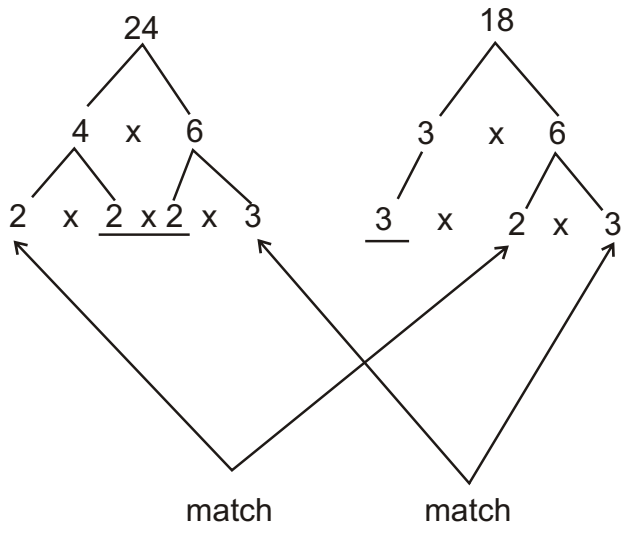
Name_____ Date_____ HB_____

Mission: Finding The LCM using Prime Factorization

Example: Find the least common multiple of 24 and 18 using prime factorization.



The number underlined do not have matches.

Find the numbers in the bottom rows that do not have any matches.

In the factor tree for 24, there are a pair of twos that do not have any matches.

Multiply the them and you have four. Next, take four and multiply by the number that you started with from the other factor tree.

4 x 18 = 72. Seventy-two is the LCM of 18 and 24.

You can also do the reverse. You can take the numbers that did not have matches at the bottom of the 18 factor tree. That number was 3. Multiply 3 by the original number of the opposite factor tree.

3 x 24 = 72. LCM of 18, 24 = 72

Directions: Find the LCM of the given pair of numbers using factor trees.

1) 12 9

2) 18 54

3) 16 24

4) 28 21

5) 8 22

6) 6 21

7) 9 16

8) 15 24

9) 20 25

10) 24 28